

Notice of Allowability

Application No.

10/800,861

Examiner

YURIY SEMENENKO

Applicant(s)

NAKAMURA, HIROKI

Art Unit

2841

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/23/2009 and Telephonic Interview at 06/29/2009.
2. ☒ The allowed claim(s) is/are 30,31 and 33-39.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 04/03/2009
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 06/29/2009
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Y. S./
Examiner, Art Unit 2841

DETAILED ACTION

Response to Amendment

1. Amendment filed on 03/23/2009 has been entered.
Claims 30, 31, 33-39 are now pending in the application.

Information Disclosure Statement

2. The references cited in the information disclosure statements (IDS) filed on 04/03/2009 have been considered by the examiner. An initialed and dated copy of Applicant's IDS form 1449, is attached to the instant Office action.

Claims

3. Claims 30, 35, 37 and 39 amendments, filed on 03/23/2009 are considered and acknowledged. The claims amendments are approved.

Response to Arguments

4. Applicant's arguments filed 03/23/2009 have been fully considered and they are persuasive.

Allowable Subject Matter

5. Claims 30-31, 33-34 and 35-39 are allowed.

The following is a statement of reasons for the indication of allowable subject matter of the claims 30-31 and 33-34: The limitations "an island-shaped silicon layer which is provided on an insulating substrate ...the copper seed layer and the copper layer are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer, and have a forward tapered cross section" in combination with other claimed limitations in independent claim 30 is not disclosed or suggested by the prior art of record. Claims 31 and 33-34 are either directly or indirectly dependent upon claim 30.

The following is a statement of reasons for the indication of allowable subject matter of the claims 35 and 36: The limitations " the gate electrode comprises source electrode and the drain electrode comprise: a first copper diffusion-preventing layer formed on the gate insulator layer source region and the drain region ... the organometallic compound material layer and the copper layer have a forward tapered cross section and are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer " in combination with other claimed limitations in independent claim 35 is not disclosed or suggested by the prior art of record. Claim 36 is dependent upon claim 35.

The following is a statement of reasons for the indication of allowable subject matter of the claims 37 and 38: The limitations "an island-shaped silicon layer which is provided on an insulating substrate ... a second copper diffusion-preventing layer covering an exposed surface including side and upper surfaces of a multilayered structure having the first copper diffusion-preventing layer, the copper layer, and the copper seed layer, and wherein the copper layer has a forward tapered cross section " in combination with other claimed limitations in independent claim 37 is not disclosed or suggested by the prior art of record. Claim 38 is dependent upon claim 37.

The following is a statement of reasons for the indication of allowable subject matter of the claim 39: The limitations "a silicon layer which is provided on an insulating substrate ... a first copper diffusion-preventing layer formed on the source region and the drain region ... the nickel seed layer or a seed layer made of a metal material of group VIIIa including a cobalt seed layer and the copper layer are surrounded by the first copper diffusion-preventing layer and the second copper diffusion-preventing layer, and have a forward tapered cross section " in combination with other claimed limitations in independent claim 39 is not disclosed or suggested by the prior art of record.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuriy Semenenko whose telephone number is (571) 272-6106. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on (571)- 272-2800 ext. 31. The fax

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. S./

Examiner, Art Unit 2841

/Dean A. Reichard/

Supervisory Patent Examiner, Art
Unit 2841